NEW YORK NEUROLOGICAL SOCIETY.

REPORT OF THE PROCEEDINGS OF THE SOCIETY AT ITS STATED MEETINGS, NOVEMBER AND DECEMBER, 1881, AND JANUARY, 1882.

Stated Meeting, November 1, 1881.

Dr. T. A. McBride, President, in the Chair.

The paper of the evening was read by Dr. L. C. Gray, the title being, "The question of reflex disturbances from genital irritation."

The speaker proposed to examine the question : What evidence is there that genito-urinary irritation may cause reflex paralysis?

The cases reported by Dr. Sayre in support of his view were then read and analyzed seriatim. The speaker argued that in some cases the previous or subsequent histories were imperfect. In one patient the disease appeared to be really spinal hemorrhage; in another, an anterior poliomyelitis. A few cases, it was admitted, seemed to prove the reporter's view, but the details were incomplete, and they could not be cited in evidence. In all, the speaker said, Dr. Sayre had reported eighteen cases in proof of his position ; yet not one of them, when critically examined, was sufficient.

In two cases the evidence was quite strong, so far as it went, but was incomplete.

In three cases there seemed to be impaired motion from the irritated genitals.

In one case there had been probably an intra-uterine spinal meningeal hemorrhage ; in another, myelitis of the anterior horns.

In eleven cases the histories were too indefinite.

The speaker had received assurances from Drs. Weir Mitchell, Da Costa, Weber, Spitzka, Hammond, Jewell, and others, that they had never met with any case of paralysis due reflexly to genital irritation. The speaker's personal experience agreed with that given by the above-named gentlemen.

In view of the foregoing data, the conviction seemed irresistible that reflex paralysis could not occur from genital irritation, or, at least, occurred very seldom.

There is, however, good reason to believe that operative procedures often cause relief, especially in the later stages. There are cases in which the operation for phimosis is beneficial to the patient, although we know that the preputial irritation is not the cause of the disease.

It must be remembered that when a genital irritation is removed by operation, we have several factors at work. An irritant is removed from an exquisitely sensitive organ, and the genitals obtain rest. The profound impression made upon the nervous system by chloroform or ether narcosis must be considered. There are many examples of the powerful results this may produce. The effect of the cutting operation in itself upon the nervous system may also be great.

The more excitable and impressionable the nervous system, the more active will these three factors be, particularly the latter two.

The cases cited by Dr. F. N. Otis show that removal of genital irritation will remove a host of nervous symptoms ; but there are no data on which any man can judicially formulate an opinion that these symptoms might not be due to organic lesions.

The speaker was not prepared to deny that reflex paralysis might not occur from some causes. It is known that they can be produced in a limited way experimentally, by squeezing the kidneys of a rabbit, for example, or by cutaneous impressions, such as putting a rubber ring about the neck of a frog. Our knowledge of the inhibitory actions of the nervous system would also lead us to think reflex paralysis possible. But there is no proof which demonstrates that such a condition can result from genital irritation.

The practical deductions are very important. We should never assume that nervous symptoms are due to genital irritation,—we should search for organic disease. But genital irritation should always be removed. There is a great prevalence among Jews of a contracted meatus, due, no doubt, to circumcision. We should be careful not to deprive the glans of its covering unless it is necessary. Dr. Jacobi says that by simply breaking the adhesions of the prepuce he has succeeded in dilating the orifice.

While it is probable that slight nervous disorders can be produced by genital irritation, yet the proofs of even this are not complete.

In the discussion Dr. L. A. Sayre said that the fact that some of his cases were paralyzed, and that after operation they recovered and remained cured, was one that could be demonstrated. Dr. Gray had intimated that in one case an apparent paralysis existed only because of the exquisite tenderness of the parts, which friction of the clothes increased. But if so, why could not the child move, as he could not, when perfectly naked ? After circumcision, without any constitutional treatment, the patient recovered complete power.

It was hard to see how, in cases of paraplegia, where immediate and permanent recovery followed operation, there could have been any organic change in the cord. In such cases, where, as the reader of the paper had done, a diagnosis of organic change is made, he should be much inclined to doubt the diagnosis. He might not have been sufficiently careful in giving the minute details of his cases, but that they had paralysis and were relieved by operation he was positive.

The number of the speaker's cases confirmatory of his view had now increased to over one hundred.

The fact that the operation had now often been performed unwisely did not weaken the view that it was a necessary and useful one in its place.

Dr. F. N. Otis said that he had come there hoping to learn something new, but he had been disappointed so far, except as regards what Dr. Sayre had said about the permanence of his results. The speaker had not seen cases of paralysis of the kind described by Dr. Sayre, but he believed in their existence on account of the many analogous cases met with in his own practice. He believed that there was something more than coincidence in the histories of all kinds of nervous disturbances becoming at once relieved after removal of a genital irritation. Many cases of seminal weakness, and of various other nervous disturbances, which disappeared after removal of the prepuce, could be recalled. A gentleman of this city, fifty-eight years of age, lost all sexual power. Dr. Otis found an irritable prepuce, with much sebaceous matter upon the glans. Circumcision was performed and sexual power restored. With regard to the Jews, who, it has been said, had, in the majority of cases, contracted meatuses, he thought this true. But, on the other hand, a great many people have contracted meatuses anyway, just as every one has some slight physical defect of some kind or other.

It did not make much practical difference in treatment, because the persons were better with the meatus enlarged, whatever the theory.

The speaker announced his very positive conviction that reflex paralysis from genital irritation was possible.

Dr. STURGIS thought that there could be no doubt regarding the existence of reflex irritations. With regard to the question of reflex paralysis, he would suggest that, so far as the evidence of Dr. Sayre's cases went, the verdict of not proven might be given. Still there was no reason to suppose why genital irritations in men should not produce paralyses similar to the hysterical paralyses that occur from like causes in women.

The speaker thought that the claim of Dr. Gray was too sweeping.

Dr. E. C. SEGUIN said that his experience was that reflex troubles might occur from preputial and other genital irritations. He agreed with Dr. Otis in reference to most of that gentleman's statements. He had, however, never seen a case of reflex paralysis from irritation of the male sexual organs. He did not deny that there were such cases, but he was waiting to see one.

With reference to the Jews, he had found that they did have contracted meatuses. He had had a great many Jewish patients, and almost every male examined had this defect. He thought, also, that the Jews presented, with a remarkable degree of frequency, reflex irritation of the sexual apparatus.

Dr. G. M. BEARD said that he had been engaged in studying the subject from a neurological standpoint for a considerable time. He had presented some of his conclusions in a general way at the meeting of the American Medical Association two years before.

He believed, in the first place, that the great majority of persons who have either a contracted meatus, or redundant prepuce, or phimosis, are just as well as anybody else. From this it might be presumed that genital irritation was not the sole cause, at least of reflex troubles.

As regards his own experience, he had found that the result of operations for the removal of genital irritation had been generally very unsatisfactory. The cases, however, in which he had had the operation done were generally those of neurasthenia, etc. In some cases there had been slight improvement ; in one case this was very marked.

Dr. Agnew, of Philadelphia, had told the speaker that he operated once for preputial irritation, and it helped the patient. In fifteen or sixteen other cases it did no good at all. Dr. Beard thought that the Jews were quite subject to nervous troubles, despite the absence of a prepuce. He was of the opinion that circumcision might actually do harm. He recalled one case in which impotence followed the operation.

Dr. E. C. SPITZKA had never seen a case of reflex paralysis from genital irritation. But he had some strong reasons for thinking that it might occur. The speaker referred to a case of posterior paralysis in a horse, in which the only lesion, except a few cysts in the ovaries, was an extensive, though but slightly progressed, nephritis. It is generally recognized that posterior paralysis in horses points to renal disease.

Dr. WILLIAM A. HAMMOND said that while it was true he had never seen a case of paralysis due to genito-urinary irritation, yet he had seen paraplegia following injury; for example, in a dragoon whose testicles were smashed. He had seen several cases of paraplegia following strong urethral injections, and had seen it apparently result from cystitis.

The speaker was prepared to admit, therefore, that preputial irritation can give rise to a paraplegia.

He did not see how Dr. Gray could refuse to admit the various paralytic troubles and hysterical symptoms that occur in females from genital irritation. He must be familiar also with the fact that catheterization of the male sometimes produced syncope, which was the evidence of a partial heart-failure or paralysis. Dr. Gray might, perhaps, make out his case if his position were that preputial irritation had not been shown to be the cause of reflex paralysis. As regards genital irritation in other parts, however, the claim of the reader could hardly be sustained.

Dr. BURCHARD related a case in which there was unmistakable paraplegia dependent on preputial irritation due to phimosis. It was entirely cured by an operation, and the patient had subsequently been under his observation, so that he knew that the cure was complete.

Dr. BIRDSALL thought that one point had been lost sight of in the discussion. Dr. Gray had referred to the different factors at work in the cure of this class of cases. One of them was the removal of the irritation, but another was the effect upon the nervous system of the operation itself. The experiments in nerve-stretching for such diseases as locomotor ataxia, neuralgias, etc., showed that injuries to the nerves had a powerful effect upon the system in general.

The speaker had recently had his attention called to the cases of Hebrew children where circumcision had been performed, and where excitation of the genital organs caused just as much trouble as if circumcision had not been performed. In another case circumcision had been performed without benefit.

Dr. SEGUIN said that he had never seen cases in which the operation had done harm. He had, on the other hand, seen a number of cases in which temporary improvement took place.

The speaker added that he had seen paralysis result from irritation of the sexual sphere, from irritation of the deep urethra, and from disease of the womb. He was not sure that he had seen paraplegia from ovarian disease. He had seen two cases in which treatment of uterine disease brought about cure. One was a case of laceration of the cervix with partial paraplegia. The other was a lady from Bermuda, who had subinvolution with marked paraplegia. She recovered very rapidly under proper treatment for subinvolution.

Dr. GRAY, in closing the discusssion, said that he had been misapprehended in several points. He had distinctly given Dr. Sayre the credit of having made the subject under discussion known to the profession. Dr. Gray then reviewed briefly the position he took and the argument he had made. He said, in conclusion, that up to the time of the present meeting there had not been, in his opinion, demonstrative proof that reflex paralyses or irritations could be produced by genital irritation alone. He was not yet convinced by what had been said that his position was an incorrect one. Yet some of the facts recently given needed careful analysis and study.

Stated Meeting, December 6, 1881.

Dr. T. A. MCBRIDE, President, in the Chair.

The paper of the evening was read by Dr. V. P. Gibney, it being entitled "Intermittent spinal paralysis of malarial origin."

Dr. GIBNEY proceeded at once to relate the histories of certain cases, showing, as he thought, this form of disease.

Case 1 was that of a boy seven years of age, of a healthy family, which lived, however, in a very malarious neighborhood. In September, 1878, he had a high fever, with delirium at night, and suffered from pains in the limbs and hyperæsthesia of the surface. This continued for a week. He improved under quinine, then got worse again ; was finally left with paralysis of the four extremities not quite complete. There was some faradic reaction. Diagnosis : myelitis of anterior horns. He was admitted to the hospital later. He then showed marked genu valgum ; walked with difficulty, and legs far apart. Diminution in power of some of the muscles ; relaxation of posterior ligaments of knee ; knee phenomena normal ; tendo Achillis tense.

Treatment, electrical and mechanical ; no medicines given. Gradual improvement took place, and the boy left the hospital cured.

He returned later with nearly the same history as that given before, but the attack this time was less severe. He had been living in a malarious locality. Ordered quinine and faradism. Under this he was completely restored again.

He returned to the malarious locality. After a time he began to have chills ; was improved by quinine, but finally was brought to the hospital, in June, 1880, for a third time, severely paralyzed. He suffered much from pains in the limbs, and he had a fever. The fever gradually disappeared ; the electrical reactions were very feeble ; the patient gradually improved, and became able to walk about ; electrical reactions also became stronger. By August he was nearly well. In October he was worse again ; his limbs became paretic ; he was unable to walk ; improvement soon after set in.

Dr. Gibney here referred to the fact that intermittent spinal paralysis was very rare indeed. The few reported cases by Macario, Hartwig, and Leyden, were quoted or referred to.

Still the literature of malarial poisoning is full of neuroses. The speaker thought it not difficult, therefore, to suppose that malarial poison might cause an anterior poliomyelitis. In such cases the anatomical diagnosis is the same as in ordinary spinal paralysis ; but, pathologically, there is a different condition, and the prognosis differs materially.

Case 2 was that of a boy aged 6. He was admitted to the hospital with paralysis of the legs and hyperæsthesia. Electrical reaction good, but not vigorous. No real atrophy. Two years before he had lived in a malarious locality, and was taken suddenly ill with fever and pains in the limbs. Was sick for six weeks, his limbs becoming paralyzed. He recovered in a few weeks.

In April, 1880, he had a second attack, which began with *malaise.* He gradually lost power in his limbs. Being brought to the hospital, he slowly improved. September 24th he was discharged cured. The next spring he was taken again with paralysis in all four extremities. Two weeks later he had convulsions. He died finally of exhaustion. He did not have tuberculosis. No autopsy was made.

Dr. Gibney, in commenting on the preceding cases, said that he thought that pathologically there must be some difference between them and those of ordinary spinal paralysis. In studying them he had been struck with the symmetrical development of the symptoms which occurred in all cases. In no instance had he found the typical degenerative reaction. Dr. Seguin had said that if cases of infantile spinal paralysis did not recover in two or three months, there was very little hope for them. Dr. Gibney could not recall a single case in which complete recovery had taken place. He was inclined to believe that simple active, followed by passive, hyperæmia, occurred in the cases of intermittent spinal paralysis. Such a condition of congestion might vary under the action of the malarial poisoning, just as was the case with the spleen.

The theory of a multiple neuritis might be entertained.

Dr. M. Putnam-Jacobi said that she had seen Dr. Gibney's first case. She was still puzzled by it. When she first saw the case she was struck with the fact that the child complained of pain all the time, and it was pain which made him object to walking more than his muscular inability to walk. He did not complain of pain upon firm rubbing, but upon slight touches. Her first thought was of hysterical paralysis or partial paralysis. Only, the electrical reactions could not be obtained, or were not good in some muscles.

Comparing this case with two of those cited by Erb, there seemed to the speaker to be a marked difference between them.

In Dr. Gibney's case, 1st, the paralysis did not come on suddenly ; 2d, it lasted for some time, and did not intermit as in intermittent fever ; 3d, it did not terminate in sweating ; 4th, there were marked sensory disturbances ; and 5th, the paralysis was not complete ; in all those respects differing from the cases quoted by Erb. In Macario's case the paralysis was not referred by that author to malaria, but was thought to be an idiopathic form, distinct from the hysterical. There is one form of paralysis to which Dr. Gibney's case might be referred, and that is the rheumatic. This is a most common form of functional paralysis. The point against such a diagnosis was the electrical reactions, which were not those of a functional paralysis.

Dr. SEGUIN said that he happened to feel a special interest in this topic, because, four or five years ago, he had occasion to look up the literature of malarial intermittent paraplegia. He would refer, in the first place, to the principal case reported by Dr. Gibney. It would appear that it might as well have been a case of diffuse or disseminated neuritis in which reactions, paralysis, hyperæsthesia, and pain were quite characteristic. It had occurred to him, when Dr. Jacobi was speaking of the absence of electrical reaction in the anterior tibial muscles, that perhaps they had never recovered from the first attack. They were all accustomed to see this in cases of facial paralysis, there being complete recovery, but the muscles do not react to the electrical current. He cited several authorities in support of the view, that cases like those reported by Dr. Gibney were extremely rare. Erb did not give a case. The subject was barely mentioned by Hartz in *Ziemssen's Cyclopædia*, and by Leyden. Paralysis from malarial poisoning was not mentioned by Trousseau, Aikin, Beckley, and many others, though a great number of them had had a very large clinical experience in malarial origins. He did not bring forward this negative evidence to refute the statements of the paper, but only as showing that a disease of this nature was unlikely to occur. Dr. Nash had cited a case of intermittent fever and subacute spinal paralysis. The fever was checked with quinine, but the legs did not improve. The patient was treated by leeches, ergot, and belladonna. Macario's case was stolen from Leyden. In certain forms of organic disease, we had strictly intermittent hemiplegia. We had seen this in syphilitic arthritis as well as in pachymeningitis. He was prepared to admit that the fever caused by the malarial poisoning might produce a lesion in the spinal cord. This view received support from the *post-mortem* findings in cases of sudden death from congestive fevers which proved fatal in a few hours. Bailly and Maillot had shown that after death from severe fevers, the spinal cord was the seat of congestion, softening, and transudation of pigmentary material. If this occurred in the case of fevers, he saw no reason why Dr. Gibney's case might not be explained in the same way. His opinion of the case reported was, granting that the fever was caused by the malaria, that the paralysis was post-febrile, malaria being the indirect cause. Whether the cord was in the condition of œdema, as suggested by Dr. Gibney, or whether there were changes in the ganglionic cells, which he thought probable, he would not attempt to say. The speaker then related a case of *malarial hemi-numbness*.

Dr. Rockwell said that he was very glad of the opportunity of bringing to the notice of the Society a case which though not kindred to Dr. Gibney's cases, seemed rare and unique. A gentleman, while at business downtown, was suddenly attacked with complete hemiplegia, articulation impaired, mind clear. He recovered from this after fifteen or twenty minutes, went to his home in Harlem, and remained there. Two days afterward he had another attack at about the same time as the first—four o'clock in the afternoon,—though not as severe. He could walk but with difficulty, articulation was imperfect, mind clear. Every third day, about four o'clock in the afternoon, he was prostrated in the same way. This continued for three or four weeks, when the time of attack was changed to eleven o'clock in the morning. These attacks first began in July, and they continued until Sept. 6th. The patient was subjected to treatment, and following this, whether the result of it or not, improvement took place, and he remained well until December. Dr. Rockwell was then called in. and found him in a hemiplegic condition, unable to talk. He died twenty-four hours afterward. At the *post-mortem*, which was performed in the presence of several medical gentlemen residing in that part of the city, very interesting pathological changes were found. In the first place, there was a thin film of organized lymph over the dura mater. There was a serous effusion at the base of the brain. The carotid plexus was affected. There was a lesion of the mitral valve of the heart. A close examination showed no thrombosis or embolism. The kidneys were not examined, but there was no uræmia, as evidenced by the fact that he was conscious to the last. In the treatment of the case quinine was used, but in exceeding small doses, two grains three times a day. He had certainly seen two cases of malarial paraplegia.

Dr. Gray remarked that he did not consider it scientific to speak of Dr. Gibney's cases as caused by malaria. All we knew about malaria was, that certain affections had exhibited a periodicity and were cured by quinine. If the cases reported were not periodical and the symptoms were not those of intermittent fever, he hardly thought it proper to speak of them as due to malaria. He had never seen a case of paralysis due to malarial poisoning, but he had seen many cases which at first he thought were due to this cause. The speaker thought that of late there had been a tendency to consider malaria a neurosis. There was undoubtedly a close connection between the symptoms and those of neurotic origin.

Dr. **Birdsall** remarked that he had nothing in the way of facts to communicate, but would like to ask Dr. Gibney whether any qualitative changes were found in the electrical examination, for we were pretty sure to get, even in a mild case of myelitis of the anterior horns, especially where there was a marked degree of paralysis, qualitative changes occurring early, and these might be of importance. He referred to the changes in the normal formula of the anodal closure, the contraction being greater than normal.

Dr. **Gibney** said that at one time he had observed this, and thought he had recorded the observation, but he found no note of it. He used a galvanic current supplied by twenty-eight cells.

Stated Meeting, January 3, 1882.

Dr. T. A. **McBride**, President, in the Chair.

The paper of the evening, entitled "The efficacy of potassium iodide in non-syphilitic organic diseases of the nervous system," was read by Dr. E. C. **Seguin**.

The speaker said that he intended his paper should be clinical and suggestive rather than an exhaustive and didactic one.

There is apparently a belief in the specific power of potassium iodide upon disease. Some teachers were in the habit of saying : Give iodide, and we will see whether the disease is syphilis or not. A good many physicians think that because a patient is helped by potassium iodide he is therefore syphilitic, and has not perhaps given a truthful history of his case. The speaker did not believe in this specification of drugs, though it was a very comfortable theory to hold. He thought that drugs act upon the organism, not upon the disease.

Dr. Seguin wished to make the arguments for his position as much clinical as possible. He would present nine cases illustrating the efficacy of potassium iodide, these cases being divided for convenience into three groups.

The first group comprised those of organic disease of the brain, in which symptoms were relieved by the iodide. The patients finally died, however, and *post-mortems* were made.

The second group comprised cases of which two were cured and one relieved.

The third group comprised cases of basilar meningitis, with optic neuritis, in children. These cases recovered rapidly under the iodide.

Not so much importance was attached to this last group.

FIRST GROUP. Case 1. *Tumor of crus cerebri.*—Patient was a boy aged nine; had always been healthy. In April, 1874, had measles; in May there appeared awkwardnesss in the right side of body. This gradually increased till finally paresis of the right arm appeared. By August he was worse; the right arm became paralyzed. Then sharp pains in various parts of head began to trouble him; and with this were nausea, vomiting, and twitchings of the paralyzed side; also double vision, and later, strabismus. Pulse habitually slow; no convulsions or loss of consciousness. When examined by Dr. Seguin the patient was conscious; right side hemiplegic; palsy of left sixth cranial nerve; slight rigidity of fingers of right hand; some ataxia of right upper extremity; staggering gait; optic neuritis.

This improvement continued until April, 1875. He then had severe symptoms again: headache, vomiting, and pains in calves of legs. These were relieved by the iodide.

The patient was seen at rare intervals by Dr. J. G. Shaw until the spring of 1880, when he died.

Autopsy showed pressure of the left crus cerebri and left side of the pons by a sarcomatous tumor.

Case 2. *Cerebellar tumor, with hydrocephalus.*—The patient, a boy, had suffered several months from severe headaches, staggering gait, and vomiting; exophthalmus. He had no paralysis, nor impairment of intelligence, nor epileptiform seizures.

He improved under iodide of potassium. Shortly after there was a great enlargement of the head, with separation of the lambdoid and sagittal sutures.

With the appearance of this enlargement and bulging, improvement took place; the exophthalmus disappeared. An examination of the child was made at this time. The face was pale; vision apparently good, but choked disc was present. All the cranial sutures wide open. No exophthalmus. In the right occipital region, in the vicinity of the lambdoid suture, was a soft tumor, which pulsated simultaneously with the heart. Feeble gait, but no paralysis. Ordered iodide of potassium. This was given in very large doses (90 to 150 grains per day), with relief of headache and many of the symptoms. The patient died the next spring. Autopsy revealed cerebellar tumor of fibro-sarcomatous character. This pressed on the venæ Galenæ, causing hydrocephalus. This case was under the care of Dr. Malcolm McLean, of Harlem.

Case 3. *Tumor of cerebellum.*—The patient, a boy of fourteen, had been healthy. In June, 1876, he fell heavily on a stone walk. Four months later, began to have attacks of vomiting, without nausea. At length, after vomiting he went into general convulsions. These symptoms continued. He gradually became paralyzed in all his limbs, though more on the left side. There was atrophy of optic nerves and loss of vision. Spontaneous improvement now occurred. He regained use of his limbs, and except for his eyes, was almost well. Mind bright. No further symptoms for four years. In May, 1880, he began to have attacks of pain in the occipital region, and vomiting. One day he was found unconscious. He was occasionally dizzy. Still able to be up and dressed.

Examination at this time showed left conjugate deviation of the eyes; tongue straight; left leg and hand stronger than right; no patellar reflex; no distinct ataxia, and the gait was not that of the type called cerebellar ataxia. Ordered bromide and iodide of potassium. One month later, he had improved wonderfully. He then grew somewhat worse again. The iodide was increased and bromide decreased, with the best results.

On October 12th he was seized with vomiting and convulsions. Death soon followed. Autopsy revealed a tumor involving a large part of the anterior portion of the right hemisphere of the cerebellum, which was the same side as the paresis. It forcibly compressed the underlying portions of the mesencephalon. Almost the whole of the right hemisphere of the cerebellum was practically disorganized. An acute meningitis of the convexity had been the immediate cause of death. The tumor was a sarcoma. The microscope also revealed masses of amyloid degeneration, some having a branch-shaped appearance, and being probably amyloid blood-vessels. The boy's family was an unusually healthy one. The teeth were normal.

SECOND GROUP. Case 1. *Left hemiparæsthesia cured by potassium iodide.*—The patient, a surgeon in the United States Army, had always enjoyed good health. In 1874, he had an attack of hemi-numbness, which lasted for a long time. It was felt in ulnar side of left hand, outer side of left leg, and occasionally in left cheek. No true anæsthesia, no ataxia or chorea. The heart was large and beat heavily, but had no organic lesion. Patient had several angina-like attacks. There was well-marked dementia.

Patient's habits have always been good ; positively denies syphilis.

Ordered iodide of potassium. The paræsthesia disappeared in a striking manner. Subsequently patient developed dementia paralytica.

Case 2. *Paralysis of third cranial nerve ; Paresis and ataxia of limbs.*—The patient, a man aged twenty-nine, had always been healthy, except that of late he had suffered from excessive use of beer and tobacco, and had had a catarrh of the bladder. July 2, 1878, while camping in the woods, he awoke with a paralysis of the left third cranial nerve. July 30th, he felt a sensation of numbness and weakness in the legs. Was ordered ergot, dry cups, rest in bed. About August 1st the right third cranial nerve became paretic. All the symptoms indicated involvement of crura cerebri. Ordered iodide of potassium in large doses. Within a month patient is much improved ; both the third nerves are better.

Takes ʒ j. pot. iodid., t. i. d. September 2d, right eye normal ; left, nearly well. Iodide continued. December 11th, no change. In spring and summer of 1879 the condition of left third nerve varied, and the amount of iodide given was varied accordingly.

Nov., 1879. New symptoms developed. Slight numbness and anæsthesia in left trigeminus ; legs are weak ; there is slight numbness also in thighs ; left facial muscles appear weak ; tongue projects straight.

Ordered increase of iodide.

Oct., 1880. The patient had been almost cured except for his left third nerve. He had resumed the use of beer and tobacco, however, and, as a result, a number of symptoms came on : an ataxic walk, absence of patellar reflex ; marked anæsthesia and ataxia of left hand ; left third nerve still paretic. No headache at any time. Treatment was continued, but there was no improvement. In the first part of the disease, however, the iodide relieved the symptoms in a most notable manner.

Case 3. *Right hemi-epilepsy with aphasia cured by potassium iodide.*—The patient, a young man, when first seen was suffering from repeated epileptiform attacks. He was a well-developed person, who had always been well ; never had had syphilis. In August last he had an attack of what he called sunstroke, but it was probably his first epileptiform seizure. He got a little better, then the attacks recurred. They were stronger on the right side. Patient was put on potassium bromide. He continued to have attacks. Had innumerable slight attacks every day, affecting right side of face and arm, not always with loss of consciousness. Sometimes there were facial spasms alone. Grs. 125 to 150 of potas. brom. given daily.

Oct. 2d. Patient is better; no spasms for forty-eight hours. Is completely aphasic. Ordered potassium iodide along with the bromide. This mixture was continued, the bromide being gradually decreased and iodide increased until finally only the former was given. Improvement was steady, and finally complete recovery was established.

THIRD GROUP. Case 1. *Basilar meningitis.*—Patient was a girl aged six years. One brother had phthisis; another child of same parents died of brain fever. For three weeks the patient had been suffering from headache and vomiting. When seen, there was marked internal strabismus, also optic neuritis. The history of the patient with other symptoms led to the conclusion that there was an incipient basilar meningitis, probably non-tubercular. Ordered potassium iodide, and blisters at the back of the neck. Improvement at once began and resulted in recovery.

Case 2. *Basilar meningitis.*—The patient was a girl aged 14 years, previously healthy. The first symptoms appeared four weeks before examination, and consisted of dulness, irritability, slight headache, once vomiting, and internal strabismus of one eye. Examination showed double neuro-retinitis. Diagnosis, non tubercular basilar meningitis. Under iodide of potassium there was rapid improvement, and, so far as known, recovery.

Case 3. *Basilar Meningitis.*—Patient was a girl aged 5 years. Had chicken-pox in January. January 19th, left internal strabismus appeared. Other symptoms followed. Examination of eyes showed double neuro-retinitis. The same diagnosis was made and treatment ordered as in previous case, with equally good results.

In commenting on the preceding cases Dr. Seguin said that they were only a few of a large number in which he had seen the same results follow the use of the iodide. He was aware of the possibility of deception as regards there having been syphilis. Still he had taken every precaution to assure himself upon this point in the cases cited as well as in others. The speaker also referred to the large doses of the drug which could be given with apparent impunity—from 30 to 150 grains three times a day.

Dr. WM. A. HAMMOND, in opening the discussion, said that for several years he had adopted the plan described by Dr. Seguin, and his experience amply sustained that gentleman's. He recalled some recent cases illustrating this. One was that of a patient who had been treated for syphilis. He was doubly hemi-paretic ; all his extremities were very weak. He could not walk. He had double vision, intense pains in the head, and difficulties of speech. He was put on iodide of potassium with the best results, being entirely well except for the double vision. He had always strenuously denied having syphilis, and there were no evidences of it.

In another case, seen three years ago, the patient when first seen was suffering from intense pains in his head, and was deaf and completely blind. There was no history of syphilis. Iodide of potassium was recommended, but no benefit followed until the patient had reached a dose of 240 drops of the saturated solution. The pains then disappeared; hearing and eyesight returned. The patient became entirely well.

In some cases the speaker had given as much as 350 drops of the saturated solution at a dose without any inconvenience to the patient. He attributed this to the fact that he made his patients take a great deal of water at the same time ; sometimes even a pint. In this way iodinism was prevented.

Dr. R. W. AMIDON recalled a case which illustrated the efficacy of iodide of potassium.

As regards the manner in which the iodide acted in such cases as had been cited, the speaker thought that it affected, not the neoplasm, but the circulation around it. We know that the potassium salts are cardiac sedatives, and tend to diminish arterial tension. If we weaken the heart, which is acting a little more strongly than usual, it will give the veins a chance to empty themselves and relieve the distended capillaries. This seemed to be the most reasonable way of explaining the action of the potassium salts. The speaker doubted whether the iodine had much to do with this action. On this point more definite knowledge was needed.

Dr. WEBER said that his experience with the iodide of potassium had been large. He had seen no curative effects from it except in syphilis, certain forms of articular rheumatism, and bronchial diseases. So far as non-specific diseases of the brain or spinal cord are concerned, he thought last year that he had met with a case which the iodide cured. But he found afterward that the patient had probably had syphilis. The patient, a man fifty-two years of age, had all the symptoms of general paralysis, and was to be transferred to the Bloomingdale Asylum. Dr. Weber was called in, however, and though convinced of the correctness of the diagnosis, thought he would first try the iodide upon him. It was given in drachm doses, and, to the speaker's astonishment, there was great amelioration of the symptoms. He found afterward that the wife had syphilis.

Regarding the *modus operandi* of the remedy, the speaker wished to express his belief that its diuretic powers had a great deal to do with its efficacy.

In certain cases of dropsy nothing will produce relief so rapidly as the iodide, which in these cases markedly increases the amount of urine passed.

With regard to the dose, there were some persons who had an idiosyncrasy, and in these a dose of two or three grains could not be borne. When it is borne, it is quickly eliminated by the kidneys, and it probably thus relieved the œdema around tumors.

The speaker thought it was not easy to tell always whether there had been syphilis or not. Even the most honest persons may deceive themselves or their physician.

Dr. MORTON wished to corroborate most emphatically Dr. Seguin and Dr. Hammond in regard to the use of the iodide of potassium in such conditions as had been described. Only lately in three instances he had been led by the somewhat anomalous complexity of the nervous symptoms, to diagnosticate late effects of syphilis, and on that supposition had given large and increasing doses of iodide of potassium. As time went on and further opportunities for studying the case were afforded, it became tolerably certain that a syphilitic history (presumed in the first place in spite of the patient's declaration to the contrary) might be eliminated.

Remarkable and permanent improvement, however, developed under the use of the iodide. And it had probably been the experience of others, as it was with him, that the improvement, as a rule, seemed to appear suddenly and at a point when very large doses of the drug had been reached, say 180 to 200 grs. three times daily. In many years he had never found that any trouble had arisen from giving these large doses.

Dr. SEGUIN, in closing the discussion, said that he was entirely aware of the possibility of being deceived regarding the previous history of a patient. He had, however, every reason to believe that there was no mistake in the histories of the cases he had cited, nor in others in which he had successfully used the iodide. He agreed with Dr. Weber that the diuretic action of the drug had something to do with its therapeutical efficacy.